



NATURAL RESOURCES DEFENSE COUNCIL



May 12, 2006

Michael Miguel
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812
mmiguel@arb.ca.gov

Re: Draft Evaluation of Port Trucks and Possible Mitigation Strategies

Dear Mr. Miguel:

On behalf of the Natural Resources Defense Council, Coalition for Clean Air, Environmental Defense, Clean Power Campaign, Bluewater Network, American Lung Association of California, Union of Concerned Scientists, and our hundreds of thousands of members living in California, we write to provide comments on the draft Evaluation of Port Trucks and Possible Mitigation Strategies ("Strategies Document"). We greatly appreciate CARB's recent focus on goods movement and ports as major sources of pollution in need of control and, in particular, the Board's recent adoption of the Goods Movement Emission Reduction Plan (ERP) as a framework to aggressively reduce pollution from this industry. We also appreciate your efforts to assess possible mitigation strategies for port trucks. Addressing pollution from goods movement related trucking is a major priority and, as you know, a crucial component of the ERP. In fact, we urge you to consider all trucks serving goods movement related facilities (including rail yards, distribution centers and air cargo) in the development of these clean up strategies. With that said, we agree that the priority should be to maximize diesel PM reductions by 2010. The following comments include several concerns over the draft proposal and several recommendations to strengthen the proposal.

Reducing Pollution from Goods Movement Related Trucking is an Urgent Public Health Matter.

The diesel trucks that carry cargo throughout California spew a toxic brew of particulate matter (PM), and smog forming nitrogen oxides (NOx) and volatile organic compounds.¹ In addition, diesel exhaust can contain an estimated total of 450 different chemicals, about 40 of which are listed by the California Environmental Protection Agency as toxic air contaminants with negative effects on health and the environment.² Health impacts of diesel exhaust range from respiratory and cardiopulmonary illnesses to elevated cancer risks and premature deaths.

Californians living near goods movement facilities – ports, airports, rail yards, distribution centers and truck routes – face much higher health risks than average due to the increased pollution. Dozens of studies have shown adverse health impacts among people, particularly children, living or going to school close to high traffic roadways, and impacts appear to be worst near roadways with heavy diesel truck traffic. For example, those living within 650 feet of heavy truck traffic experience increased asthma hospitalizations, according to one recent study.³ Not only is close proximity to freeways and heavy truck routes linked to respiratory illnesses, the exposure to elevated diesel PM levels contributes to greatly elevated cancer and premature mortality risks. Some health risk analysis data shows cancer risks as high as 100 in a million near freeways,⁴ while the Natural Resources Defense Council found that limited air monitoring done near a major truck route in West Oakland showed increased cancer risks on the order of 1000 in one million.⁵

¹ California Air Resources Board, “Draft Diesel Exposure Assessment.” A-7 (1998).

² JL Mauderly, “Diesel exhaust,” *Environmental Toxicants: Human Exposures and Their Health Effects*, ed. M Lippman (New York: Van Nostrand Reinhold, 1992).

³ Lin, S. et al. “Childhood asthma hospitalization and residential exposure to state route traffic.” *Environ Res.* 2002;88:73-81

⁴ Air Quality and Land Use Handbook: A Community Health Perspective, CARB, April 2005, p. 9. Note: This risk number is based on the Roseville Rail Yard Study, on a stretch of I-80 that handles 10,000 truck trips per day.

⁵ Air Quality monitoring was done by the Natural Resources Defense Council using an Aethalometer for three to five days inside several residences near 7th Street. Average weekday concentrations at the two locations were 2.1 µg/m³ of black carbon, corresponding to an elevated cancer risk of 1200 per million based on cancer risk methodology from the following sources:

(1) STAPPA/ALAPCO, Cancer Risk from Diesel Particulate: National and Metropolitan Area Estimates for the United States, March 15, 2000.

(2) Cal EPA, Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program Risk Assessment Guidelines, August 2003; http://www.oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf.

Clean-up Strategies Should Be Flexible to Ensure Maximum Pollution Reductions and Cost-effectiveness.

Rather than setting a rigid course for a truck clean-up program through 2020, we believe that instead, priorities should be set out clearly and periodically re-evaluated as technological, economic and other circumstances change. We therefore propose the following priorities in place of the three separate strategies proposed:

- 1) Replace all pre-1994 model year trucks with 1998⁶ or newer models, *and* retrofit the replacement vehicles with level 3 PM controls (achieving 85% or higher reductions), if the vehicles do not already meet a 0.01 g/bhp-hr PM standard. This is similar to the proposed Strategy 1, however, it should be considered a first step in a series. This should be completed within three years, or by the end of 2009.
- 2) Retrofit with level 3 PM controls (achieving 85% or higher reductions) all trucks not previously retrofitted with level 3 PM controls and that do not meet a 0.01 g/bhp-hr PM standard (for example, most pre-2007 model years). This should commence upon completion of the above priority with a goal of requiring no more than two years to complete.
- 3) Retrofit all pre-2003 model year trucks with the best available NOx controls, where feasible and where cost-effectiveness thresholds would be met according to Carl Moyer Program guidelines. This should commence in tandem with the above priority and require not more than two years to complete.
- 4) With the completion of the above priorities, CARB should re-assess the most cost-effective strategies that remain based on the most recent inventory, technology and economic data.

We are concerned that while the proposed Strategy 2 and 3 appear to achieve high NOx reductions in the future, these reductions may be significantly over-stated and costs and other hurdles may be vastly under-estimated.⁷ For instance, the cost of trucks meeting the 2010 NOx standard may be much higher than expected, while availability may prove scarce. In the meantime higher efficiency NOx retrofit technology may become more widely available. It is not prudent to commit to low-efficiency NOx retrofits or replacements for 2003 and newer vehicles at this time.

⁶ A program administrator must ensure that any 1998 or 1999 replacement trucks with “defeat devices” allowing higher NOx emissions have been “reflashed” to comply with original certification standards.

⁷ A recent study of in-use emissions indicates that newer diesel engines may release more NOx under certain drive cycles than older vehicles meeting weaker emissions standards. Thus, the expected emissions benefits from newer diesel engines may be overestimated. See Coordinating Research Council, Inc. et al., *Heavy-Duty Vehicle Chassis Dynamometer Testing for Emissions Inventory, Air Quality Modeling, Source Apportionment and Toxic Emissions Inventory: Phase 2 Final Report* (July 12, 2005).

Adequate Financial Assistance Must Be Available for Low-Income Truckers.

As noted in this study, most truckers serving ports have very limited ability to afford newer trucks or retrofits. Without adequate financial assistance, it is not clear how owner-operators and small fleets will be able to cope with the requirements.

Additionally, as the fleet expands and more trucks serve the ports, it is not clear how the new truckers will be able to afford mandatory new truck requirements over their counterparts. According to the Strategies Document, the cost of complying with requirements in the first year would be almost \$50,000.⁸ This first proposed milestone alone would create a huge inequity between truckers who have access to financial assistance and “new service” truckers who do not.

Further, the lines between “new service” truckers and truckers currently serving the ports may be blurry. For example, some owner/operators may be engaged in other work for much of the year, yet pick up extra work serving the port during busy times of the year, such as late Fall. Finally, enforcement of the “new service” truck proposal appears to be very difficult and ill-defined.

We recognize that CARB is attempting to secure funding for fleet modernization through the proposed bond measures. This effort is worthwhile because significant funding will be necessary to meet the ambitious goals laid out by Governor Schwarzenegger. Nevertheless, the fate of the bonds still is uncertain and, even if they pass, they still will not provide sufficient funds for all needed truck fleet modifications in addition to the other important measures outlined in the ERP. Accordingly, we strongly recommend that the CARB support container fees, as implied on page 48 of the draft document. As discussed below, however, staff needs to clarify that such fees will not be paid by the truckers, which are the lowest paid members of the goods movement system, but rather, by the true economic beneficiaries of the system. Finally, we recommend that staff continue to make incentives available to truck drivers in 2006 and beyond, since the economic hardships related to the purchase of new trucks by independent owner-operators will continue to exist at that time.

CARB Needs a Better Enforcement Strategy.

Attempting to control new trucks that “enter into port service” after 2006 may prove extremely difficult. For instance, how would CARB determine which trucks are newly entering into port service and how would CARB enforce the proposed requirements that all new trucks be model year 2003 and newer by 2007?

⁸ Based on the chart on p. 33, the cost to purchase a compliant 2003 MY truck in 2007 is ~\$55,000, which is roughly \$40,000 more than purchasing a ten year old truck, the assumed age of trucks entering port service. The truck owner would also have to install a DPF on that truck for an additional \$8,500 plus added maintenance costs.

Mandatory Clean-up Requirements Must Serve as a Backstop to Ensure That All Polluting Trucks Are Replaced.

While most truckers cannot afford to meet clean-up requirements without financial assistance, they may not opt to accept that financial assistance without a mandatory deadline for clean-up. Thus, port trucks should be included in the rulemaking for the Private On-Road trucking fleets, or a similar type rulemaking should be commenced to set this mandatory requirement.

An Advisory Body of Stakeholders Should Be Used to Assist with the Design of and Ensure the Efficacy of the Program.

Port Truck business dynamics (p. 52) needs to be further explored & monitored moving forward. We suggest an advisory committee or working group representing all interested stakeholders to sort through these issues. This group will be able to discuss and attempt to resolve the numerous issues surrounding this program, including the need for adequate financial assistance.

The Container Fee Needs to be Clarified and Should be Expanded to all Containers.

On page 48 of the draft document, a container fee is referenced. However, it is unclear who actually pays the fee. We assume that CARB does not intend to make truckers pay this fee. As the Strategies Document makes clear, “[m]ost port trucks are driven by owner/operators in an economically competitive business that generates low profit margins with little ability to increase rates to cover the costs of complying with potential emission reduction strategies.” (p. iii). Staff should therefore clarify the document to make clear that the true economic beneficiaries of the goods movement system will pay this container fee. Also of great import is the fact that the proposed container fee only seems to apply to containers that are trucked. Containers that exit the port via rail also cause a great deal of pollution and should be assessed an equal fee.

The Cost per Container Estimates Are Vastly Under-Stated.

The cost per container calculation is under-stated because it does not account for program administration (which could be exceptionally high given the magnitude of this effort), the expanding truck fleet over time, and other contingencies. CARB should use conservative estimates instead of potentially providing a low quote, which could later inhibit the effectiveness of this effort to reduce pollution from port trucks.

CARB Should Promote the Cleanest Alternatives.

We recommend that CARB consider incentives to replace diesel equipment with cleaner alternatives, such as alternative fuels. Alternative fuels should be strongly incentivized as the preferred method of compliance when they are the cleanest option available and suitable for the end-use/application. For captive drayage trucks that predominantly operate in a given area, CARB should seriously consider an incentive program for cleaner alternatives to diesel.

May 12, 2006

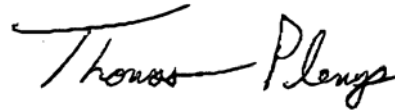
Page 6

We appreciate the opportunity to comment on this draft document. We look forward to working with CARB to further develop a strategy to reduce the staggering levels of pollution stemming from the goods movement sector.

Sincerely,



Julie Masters
Senior Attorney
Natural Resources Defense Council



Tom Plenys
Research and Policy Manager
Coalition for Clean Air



Bonnie Holmes-Gen
Assistant VP, Government Relations
American Lung Association of California




Jose Carmona
Policy Coordinator
Clean Power Campaign



Patricia Monahan
Senior Analyst
Clean Vehicles Program
Union of Concerned Scientists



Kathryn Phillips
Manager
California Clean Air for Life Campaign
Environmental Defense



Teri Shore
Clean Vessels Campaign Director
Bluewater Network - A Division of Friends of the Earth